

UMaine Composites Center Briefs Congressional Composites Caucus

Thursday, April 15 2010

WASHINGTON, DC – At the invitation of Congressman Mike Michaud, Dr. Robert Lindyberg of the University of Maine participated in a Congressional Composites Caucus briefing today on composites materials and the technology used in wind energy. The briefing, which took place this morning on Capitol Hill, provided an overview of the use of composites in wind energy applications, where composites are manufactured, the impact this market has on employment and training, and new technology that will serve this market. Michaud helped establish the Congressional Composites Caucus last year and has secured research and development investments over the years for the University of Maine's work in this area.

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"Maine is at the forefront of this technology and the University of Maine has a tremendous story to tell and experiences to share," said Michaud. "I am pleased that Dr. Lindyberg was able to make it to Washington to provide his insights as Congress continues to move forward on promoting clean energy initiatives. The research and development that the University is doing on this technology will create jobs and help our state move forward on the development of clean sources of energy."

"Congressman Michaud invited us to present the UMaine composites work to the Composites Caucus," said Professor Habib Dagher, Director of UMaine's Advanced Structures and Composites Center. "This was a wonderful opportunity which gave us national exposure with industry, and will result in more business opportunities for us and our partners in Maine industry."

The University of Maine is making progress on using composites in wind energy development thanks in large part to federal investments secured by Maine's congressional delegation and funding made available for clean energy through the Recovery Act.

For example, last year Michaud secured \$250,000 for next generation composite wind blade manufacturing technology. Currently, the majority of composite wind blades are manufactured in Asia and South America. This particular project will help UMaine develop materials and processes to increase manufacturing productivity to bring blade production back to the U.S.

In October 2009, the Department of Energy announced an \$8 million grant to develop a deepwater offshore wind test center in Maine. The grant, which was made possible through the American Recovery and Reinvestment Act, was awarded to a public-private partnership led by the University. According to Dagher, UMaine is "operating full steam forward" and is currently designing prototypes for floating wind turbines which will be built and tank-tested this year. Next year, they plan to manufacture a 1/3 scale 100 KW floating wind turbine in Maine to be placed at a test site for evaluation.

According to Dagher, there is significant national and international interest in Maine's offshore wind program. The goal is to build 5GW of offshore floating wind farms by 2030 that are 20-50 miles offshore. Estimates run by UMaine and the U.S. Department of Energy indicate that this could attract up to \$20 billion of private investment to Maine and create thousands of jobs if the supply chain in the state is maximized.

Additionally, the Advanced Nanocomposites in Renewable Energy Laboratory (ANREL) is being designed, and a groundbreaking ceremony is being planned for later this spring. The goal is to construct the 30,000 square foot laboratory, which would be an expansion of the current composites center at UMaine, within 18 months. The effort is being funded through a \$12.5 million American Recovery and Reinvestment Act grant.

ANREL will be the only such facility in the United States to include complete development capabilities for designing, prototyping and testing large structural hybrid composite and nanocomposite components for the deep water offshore wind energy industry. It will be outfitted with experimental robotics equipment for manufacturing composite blades, towers, and floating foundations. When completed, the new lab is expected to employ up to 50 full and part time personnel.

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